

# Island County Transportation Plan

## Population and Employment Analysis Island County

Island County Land Use Workshop #2  
January, 21 2014

# Agenda

- Island County Population
- Population Allocations
- Island County Employment
  - Covered Employment
  - Total Employment
  - Population to Employment Ratio
  - Employment Forecast
  - NAS Whidbey Island
  - Commute Flows
- Discussion: Employment Alternatives for Model Test
- Next Steps

# Population

- Establishing County Population Target
  - Allocating Population

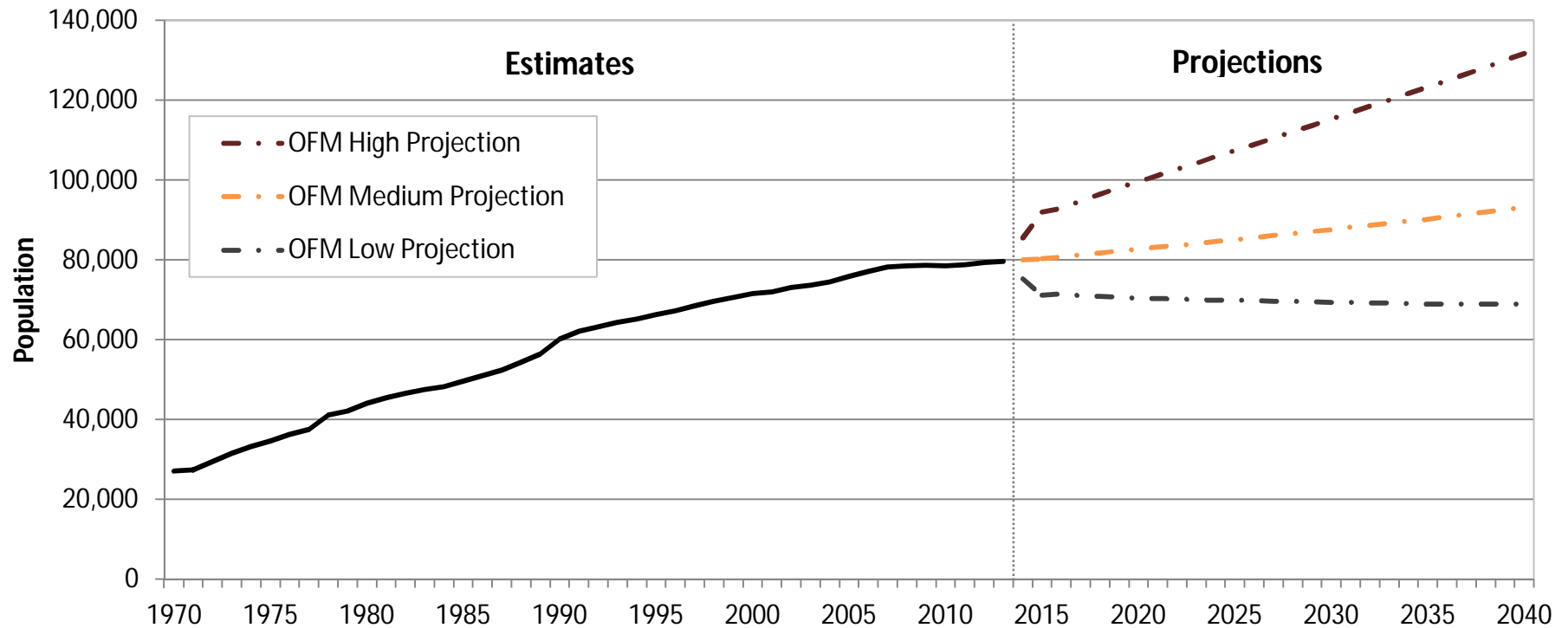
# Population Growth

## Where is Island County Now?

- Island County Planning and Community Development Produced 2036 County Pop. Estimate that differed from OFM medium
- Island County BOCC Adopted 2036 population forecast by resolution on August 26
- Regional Population Allocations Have been developed
  - County Planning Areas
  - UGA/Urban
  - Rural

# Population Growth

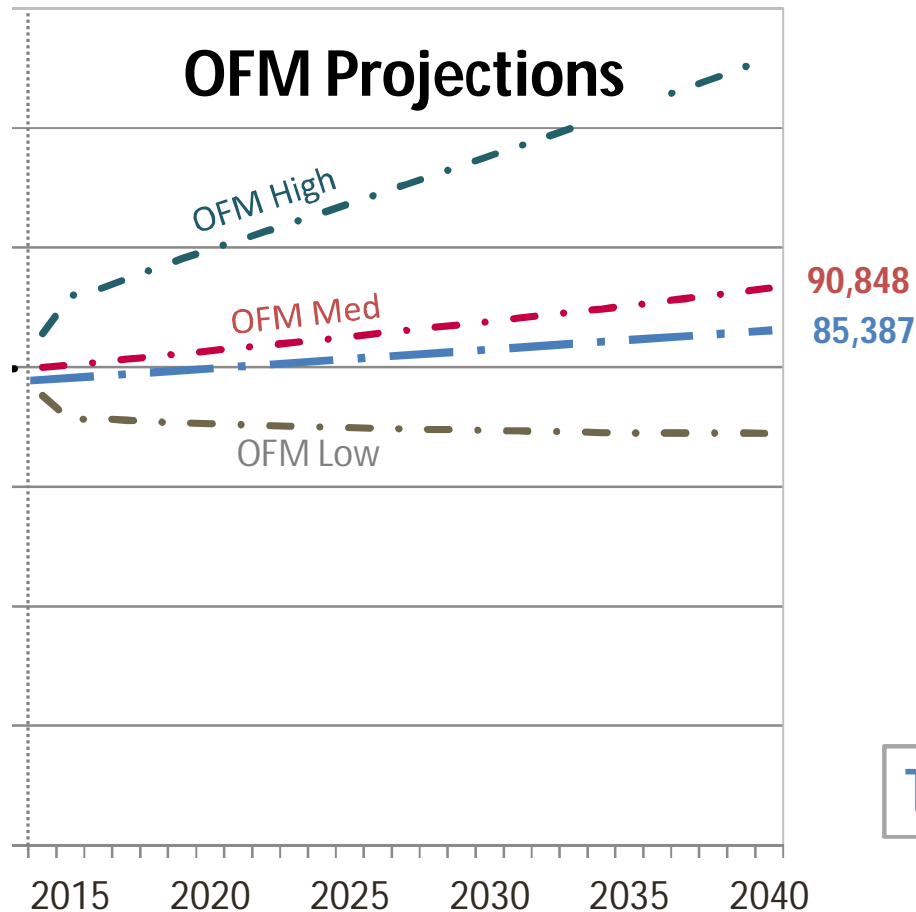
## Island County Population, 1970-2040 and OFM Projections



Source: Office of Financial Management, historical Data and May 2012 projections.

# Population Growth

## 2036 Island County Population Projections OFM Projections



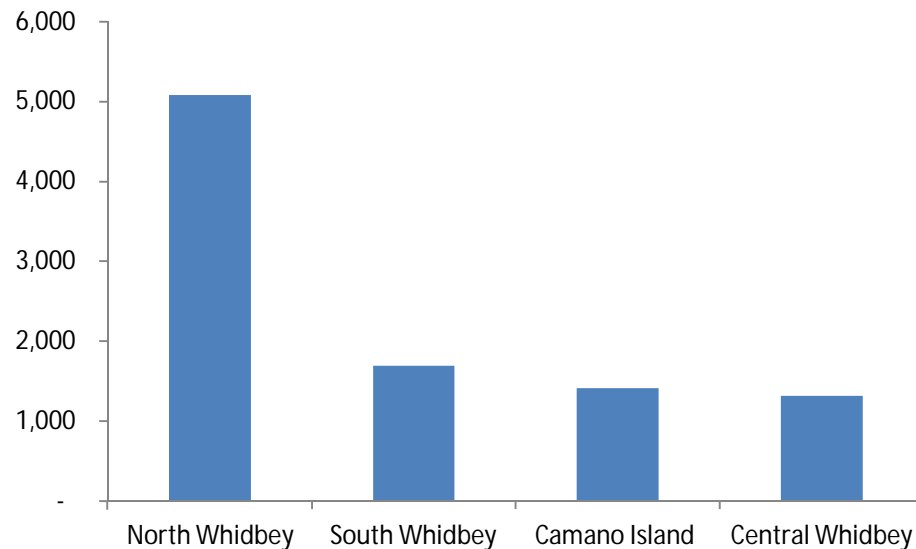
- Differed from OFM Medium
- 98' and 05' Projections were overestimates
- Drop in total Fertility Rates
- Historical (30 yr.) growth rate decline
- Reduction in expected retirees and off-Island commuters moving to County
- 2,530 additional military personal and families

**Total 2036 County Forecast = 87,917**

# Population Allocation

## Planning Area Split

Share of Projected Growth by Planning Area



- Total forecasted 2036 population is 87,917
- Includes 2,530 Service People and Families
- General Growth follows past trends within planning areas
- Growth trends in planning area have been consistent over past 40 years

# Population Allocation

## Urban/Rural Split

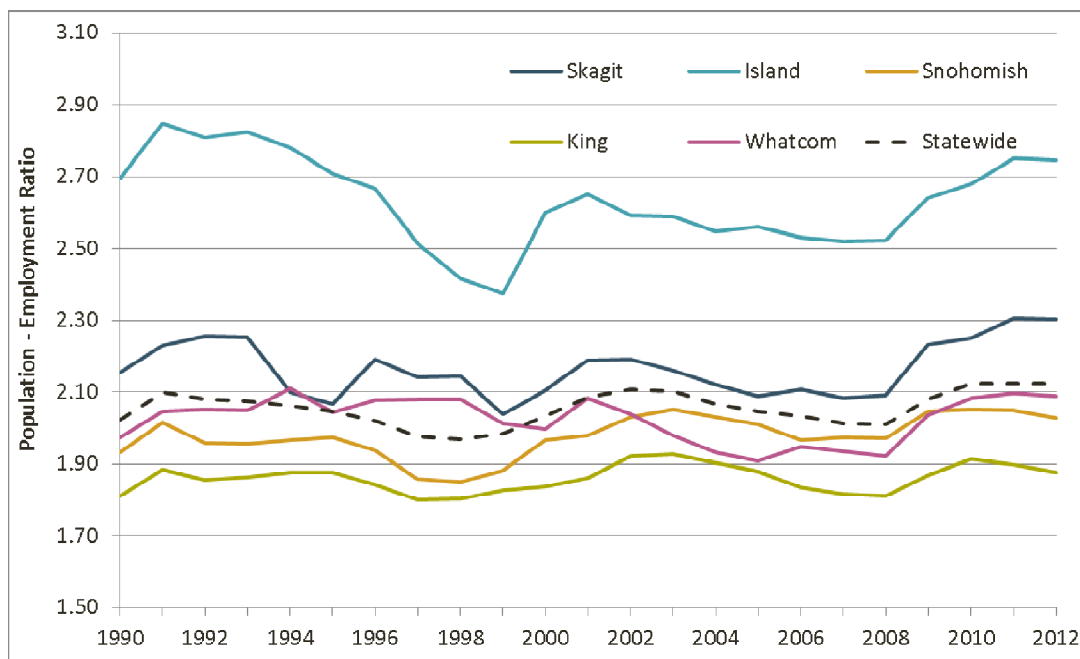
Planning Area	Urban/ UGA	Rural
North Whidbey	3,739	2,493
South Whidbey	230	981
Central Whidbey	149	842
Camano Island	-	1,018
<b>Total</b>	<b>4,118</b>	<b>5,333</b>



# Employment

- Establishing Current Total Employment
  - Forecasting 2036 Employment

# Population to Employment Ratios



Source: OFM Long-term Forecast of the Washington Labor Force, March 2013; ESD Local Unemployment Statistics, 2013.

- Historical relationships to statewide averages can inform employment projections
- Total employment can be estimated by assuming reasonable changes in the population-employment ratio.
- Total employees in County vs. total jobs
- Consistent with historical Commute Flow Data
- Island County has a significantly higher population-employment ratio than the State overall

# Population to Employment Ratios

## COMPARISONS TO OTHER COUNTIES

County	Population-Employment Ratio	
	2000	2010
Skagit	NA	2.34
King	1.38	1.63
Kitsap	2.44	2.58
Pierce	2.45	2.50
Snohomish	2.49	2.66

Source: Puget Sound Regional Council Land Use Baseline, 2013; BERK, 2013


# Population to Employment Ratios

## Steps to 2036 Employment Forecast

1. Covered Employment » Total Employment
2. Current Countywide 2012 Pop:Emp ratio
3. State 2012 Pop:Emp ratio
4. State 2036 forecasted Pop:Emp ratio
5. Grow County ratio at the same rate as state ratio
6. Apply 2036 county ratio to 2036 pop growth target
7. Allocate Employment Growth to:
  - Employment sectors
  - Planning Geographies

# Population to Employment Ratios

## Total Employment

- ESD Covered Employment Excludes:
  - Corporate Officers
  - Elected officials
  - Church Employees
  - Railroad workers
  - Self Employed
  - Uniformed Military
- Covered  Total:
  - PSRC Methodology
  - American Community Survey: County to County Commute Flow
    - 2012 1-yr estimate
    - 2006 – 2010 5-yr estimate

# Employment by UGA

## Covered Employment (SCOG)

City/Town/Area	Two-digit NAICS Code																								Total
	11	21	22	23	31	32	33	42	44	45	48	49	51	52	53	54	55	56	61	62	71	72	81	92	
Oak Harbor+UGA																									
Employers	*	*	3	27	*	*	9	8	50	27	5	*	8	27	36	28	*	30	8	67	7	60	158	4	567
Employees	*	*	11	134	*	*	270	16	800	687	81	*	39	170	134	104	*	350	975	789	175	867	274	223	6201
Coupeville																									
Employers	*	*	*	7	*	*	*	*	5	*	*	*	3	3	6	6	*	*	*	19	*	17	23	*	107
Employees	*	*	*	14	*	*	*	*	53	*	*	*	7	16	24	21	*	*	*	815	*	181	37	*	1677
Langley+UGA																									
Employers	*	*	*	*	3	*	*	*	5	10	*	*	*	*	10	*	3	*	10	5	10	8	*	*	79
Employees	*	*	*	*	15	*	*	*	11	81	*	*	*	*	17	*	12	*	65	18	160	10	*	*	522
Freeland UGA																									
Employers	*	*	*	6	*	*	*	7	12	8	*	*	*	12	6	8	*	4	*	13	*	11	5	*	99
Employees	*	*	*	12	*	*	*	13	279	30	*	*	*	53	19	31	*	10	*	178	*	194	8	*	1069
Unincorporated Whidbey**																									
Employers	23	*	5	136	6	*	10	20	27	9	9	*	7	13	14	75	*	54	15	22	22	29	123	5	631
Employees	137	*	11	337	35	*	16	41	254	48	200	*	146	33	39	522	*	317	325	170	407	305	258	636	4271
Unincorporated Camano																									
Employers	4	*	4	40	*	*	3	15	9	3	4	*	4	*	3	12	*	9	*	7	5	3	55	*	189
Employees	12	*	10	78	*	*	31	22	129	11	13	*	5	*	13	31	*	39	*	63	68	29	63	*	835
Non-located***																									
Employers	5	*	3	22	*	*	5	15	13	10	*	*	5	8	9	24	*	8	11	13	6	6	69	11	249
Employees	15	*	8	68	*	*	6	33	63	27	*	*	11	46	9	52	*	22	33	48	19	20	108	26	626
Totals																									
Employers	32	*	18	239	14	*	30	69	121	68	20	7	29	65	75	163	3	110	42	151	49	136	441	27	1921
Employees	164	*	55	644	74	*	516	136	1589	896	300	90	215	324	242	778	62	757	1649	2128	719	1756	758	136	15201

Notes: \* Data suppressed; \*\*Outside of all cities, towns and associated UGAs; \*\*\*Employers' locations could not be determined due to address reporting errors

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2nd Quarter of Calendar Year 2012

### Two-digit NAICS Code Descriptions

11 - Agriculture, Forestry, Fishing and Hunting  
 21 - Mining, Quarrying, and Oil and Gas Extraction  
 22 - Utilities  
 23 - Construction  
 31 - Manufacturing  
 32 - Manufacturing  
 33 - Manufacturing  
 42 - Wholesale Trade  
 44 - Retail Trade  
 45 - Retail Trade  
 48 - Transportation and Warehousing  
 49 - Transportation and Warehousing

51 - Information  
 52 - Finance and Insurance  
 53 - Real Estate and Rental and Leasing  
 54 - Professional, Scientific, and Technical Services  
 55 - Management of Companies and Enterprises  
 56 - Administrative and Support and Waste Management and Remediation Services  
 61 - Educational Services  
 62 - Health Care and Social Assistance  
 71 - Arts, Entertainment, and Recreation  
 72 - Accommodation and Food Services  
 81 - Other Services (except Public Administration)  
 92 - Public Administration



DRAFT

12/9/2013

# Population to Employment Ratios

## PSRC Method to “Gross-Up” Covered Employment

Data Source	Applied as	Aggregation	Compensates for	Reference
ESD QCEW (preliminary totals)	Control total (March value)	County x Major Sector	<b>Temp agencies and unlocatable records</b>	<a href="http://www.workforceexplorer.com/article.asp?PAGEID=&amp;SUBID=&amp;ARTICLEID=4792&amp;SEGMENTID=2">www.workforceexplorer.com/article.asp?PAGEID=&amp;SUBID=&amp;ARTICLEID=4792&amp;SEGMENTID=2</a>
Current Employment Statistics (CES)	Control total (Annual avg)	County x Private, Public	<b>Corporate officers, elected officials, church and railroad workers</b>	<a href="http://www.workforceexplorer.com/article.asp?PAGEID=&amp;SUBID=&amp;ARTICLEID=4792&amp;SEGMENTID=3">www.workforceexplorer.com/article.asp?PAGEID=&amp;SUBID=&amp;ARTICLEID=4792&amp;SEGMENTID=3</a>
Current Population Survey (CPS)	Ratio multiplier (Total/W&S at national level)	2-digit NAICS	<b>Non-incorporated self employed</b>	Table AA16, <a href="http://ftp.bls.gov/pub/special.requests/lf/">ftp.bls.gov/pub/special.requests/lf/</a>

# Population to Employment Ratios

## Developing Multipliers and Forecasts

NAICS	Industry Description	QCEW		WEE Adjusted	CPS		Share of 2012 Total	2036 Employment	Additional Jobs
		QCEW Q2 2012	Annual Avg Emp 2012		Adjusted (2012 Total)				
11	Agriculture, forestry, fishing and hunting	164	168	164	175	0.007	183	8	
21	Mining	19	*	20	21	0.001	22	1	
22	Utilities	55	*	57	61	0.003	64	3	
23	Construction	644	634	662	706	0.029	736	30	
31-33	Manufacturing	590	632	607	648	0.027	676	28	
42	Wholesale trade	136	145	140	149	0.006	155	6	
44-45	Retail trade	2,475	2,043	2,544	2,714	0.113	2,831	117	
48-49	Transportation and warehousing	390	145	401	428	0.018	446	18	
51	Information	215	208	221	236	0.010	246	10	
52	Finance and insurance	324	310	333	355	0.015	370	15	
53	Real estate and rental and leasing	242	239	249	266	0.011	277	11	
54	Professional and technical services	778	575	800	854	0.036	891	37	
55	Management of companies and enterprises	62	*	64	68	0.003	71	3	
56	Administrative and waste services	757	694	778	830	0.035	866	36	
61	Educational services	1,649	213	1,695	1,808	0.075	1,886	78	
62	Health care and social assistance	2,128	1,483	2,188	2,334	0.097	2,434	100	
71	Arts, entertainment, and recreation	719	353	739	788	0.033	822	34	
72	Accommodation and food services	1,756	1,665	1,805	1,926	0.080	2,009	83	
81	Other services, except public administration	758	736	779	831	0.035	867	36	
GOV	GOVERNMENT								
	Covered	1,319	4,451	1,356	1,447	0.060	1,509	62	
	Military				7,300	0.304	8,800	1,500	
NEC	NOT ELSEWHERE CLASSIFIED	40	112	41	44	0.002	46	2	
Non-Military Total					16,689				
Total		15,220	14,805	15,643	23,989		26,206	2,217	
2036 Total					25,020				




# Population to Employment Ratios

## Multipliers

<b>WEE Control Total</b>	<b>OCEW 2012 Average Annual Employment - Control Total</b>	<b>WEE (CES) Multiplier</b>	<b>National CPS self- employed adjustment:</b>
15,220	14,805	0.028	0.067

# Population to Employment Ratios

## 2036 Countywide Employment Forecast

	2012			2036			Ratio Delta	Percent Change
	Pop	Emp	Ratio	Pop	Emp	Ratio		
Washington (OFM Estimate)	6,817,770	3,223,300	2.12	8,546,278	3,803,476	2.25	0.132	6.23%
PSRC Method	79,350	23,989	3.31	87,917	25,020	3.51		
ACS Commute Flow 2012 estimate	79,350	25,216 	3.15	87,917	27,938	3.15		
Commute Flow 2006-2010 Average	79,350	28,214	2.81	87,917	29,426	2.99		

Source: OFM Long-term Forecast of the Washington Labor Force, March 2013; ACS County-to-County Commute Flow 2012 1-yr estimate and 2006-2010 5-yr average.

**Note: 2036 Total does not include military**

# Population to Employment Ratios

## Planning Area Employment

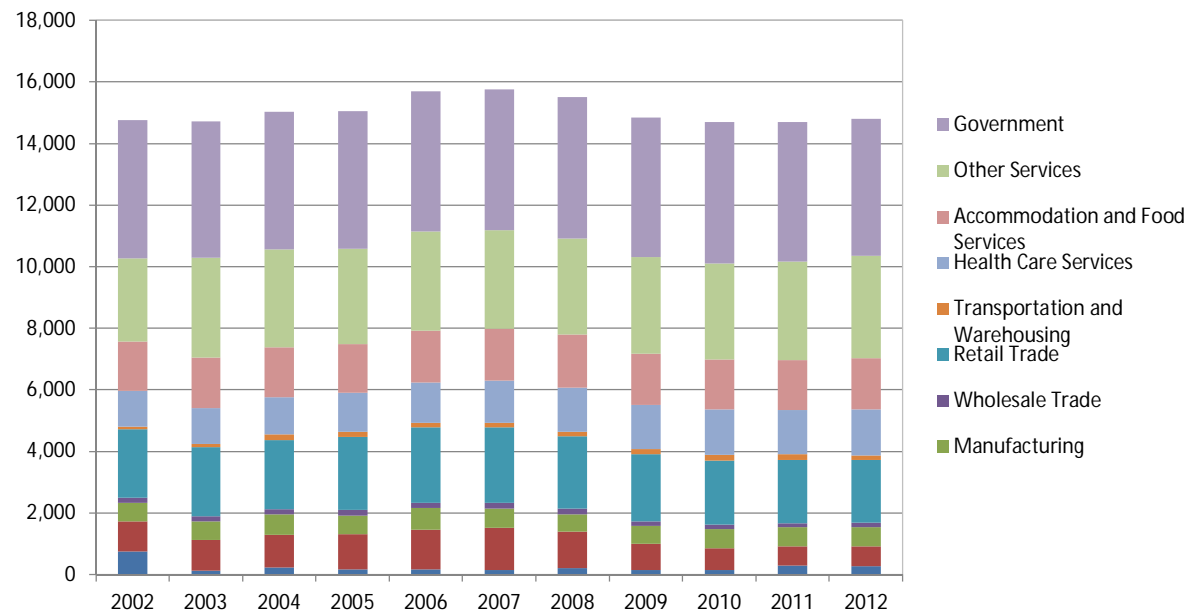
### Estimated 2012 and 2036 Forecasted Employment By Planning Area

	2012 Covered Employment	WEE multiplier	CPS multiplier	Est. Total 2012 Employment	Total Additional 2036 Employment	Est. 2036 Employment (Including military)	2012 Share	2036 Share
<b>North</b>				16,214	2,287	17,714	68%	66%
Non-military	8,127	8,355	8,914	8,914	787	8,914	37%	33%
Military				7,300	1,500	8,800	30%	33%
<b>Central</b>	2,863	2,943	3,140	3,140	277	3,140	13%	12%
<b>Sounth</b>	2,750	2,827	3,016	3,016	266	3,016	13%	11%
<b>Camano</b>	835	858	916	916	81	916	4%	3%
<b>Total Located</b>				<b>23,286</b>	<b>2,911</b>	<b>26,196</b>		
non located	626	644	687	687	61	687	3%	3%
<b>Grand Total</b>				<b>23,972</b>		<b>26,883</b>		

# Employment by Industry – Island County

## Island County Covered Employment by Industry, 2002-2012

NAICS	Industry	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
11, 21-22	Resources and Utilities	759	140	242	163	170	160	218	158	155	296	280
23	Construction	966	980	1,061	1,146	1,293	1,362	1,174	852	710	617	634
31-33	Manufacturing	604	618	663	615	698	626	578	571	617	622	632
42	Wholesale Trade	173	166	164	174	176	176	177	147	132	141	144
44-45	Retail Trade	2,224	2,227	2,248	2,388	2,438	2,452	2,345	2,183	2,083	2,040	2,044
48-49	Transportation and Warehousing	71	118	179	158	162	159	150	164	198	189	145
62	Health Care Services	1,176	1,154	1,207	1,267	1,307	1,371	1,426	1,439	1,481	1,436	1,483
72	Accommodation and Food Services	1,590	1,647	1,621	1,587	1,687	1,673	1,732	1,666	1,625	1,626	1,665
51-61, 71, 81	Other Services	2,712	3,232	3,173	3,094	3,210	3,213	3,109	3,132	3,111	3,202	3,332
	Government	4,484	4,447	4,469	4,456	4,567	4,577	4,611	4,527	4,597	4,537	4,451
	<b>Total</b>	<b>14,759</b>	<b>14,729</b>	<b>15,027</b>	<b>15,048</b>	<b>15,708</b>	<b>15,769</b>	<b>15,520</b>	<b>14,839</b>	<b>14,709</b>	<b>14,706</b>	<b>14,810</b>



Source: ESD, 2013.  
Note: 2012 data is preliminary.

# Naval Employment

- Uniformed Military not included in ESD
- Civilian Employees and Contractors are included in ESD
- Two Potential Numbers:

## NAS Whidbey Employment

Alt1		Alt2	
Contractors	1,200	Military	6,900
Civilians	1,200	Reservists	350
Military	6,900	Foreign Gov. Workers	50
<b>Total</b>	<b>9,300</b>		<b>7,300</b>

\* Canadian armed forces per NAS Whidbey Island

# Commute Flows

- Data Sources
- Commute Flows

# Island County Commute Flows

LEHD

- Uses a probability model to determine employment locations
- A “synthetic” data set using Unemployment Insurance (UI) and Quarterly Census of Employment and Wages (QCEW), and other administrative records.
- QCEW data excludes self-employed, railroad, federal government and military workers not covered by UI
- QCEW data is supplemented by records from the Census Bureau’s Business Register (BR) which includes business location, industry classification, employment and other business information
- Can include more than one job per worker
- As part of QCEW, there is a Multiple Worksite Report (MWR), whereby employers report all worksites within the state. Washington State makes this report voluntary. Many other states, including Oregon and California, make this report mandatory

# Island County Commute Flows

## CTPP

- Uses the 2006 – 2010 American Community Survey (ACS) data as the source
- ACS is sample-based and provides estimates with margins of errors
- Only one workplace location can be answered on the survey form; does not account for workers working more than one job
- ACS questionnaires are mailed out monthly, ACS data releases occur every year



# Island County Commute Flows

CTPP vs. LEHD

## Where Island County Residents Work

CTPP

Workplace County	Number of Workers	Percent
Island	25,235	72.2%
Snohomish	5,015	14.3%
Skagit	2,215	6.3%
King	2,205	6.3%
Whatcom	150	0.4%
All Other Counties	84	0.44%
<b>Total</b>	<b>34,904</b>	<b>100%</b>

LEHD

Number of Workers	Percent
8,423	34.2%
4,927	20.0%
2,305	9.4%
5,502	22.4%
1,105	4.5%
2,351	9.6%
<b>24,613</b>	<b>100%</b>

## Where Island County Workers Live

CTPP

Place of Residence	Number of Workers	Percent
Island	25,235	89.0%
Snohomish	1,510	5.3%
Skagit	955	3.4%
King	215	0.8%
Whatcom	145	0.5%
Kitsap	105	0.4%
All Other Counties	185	0.7%
<b>Total</b>	<b>28,350</b>	<b>100%</b>

LEHD

Number of Workers	Percent
8,423	69.6%
980	8.1%
723	6.0%
456	3.8%
373	3.1%
106	0.9%
1,045	8.6%
<b>12,106</b>	<b>100%</b>

# Employment Projection Alternatives

- Naval Employment?
- Variations on Population-employment ratios?
- Vary assumptions about economic drivers – e.g. emerging industry clusters?
- Vary assumptions about employment?

# Next Steps

## Next Island County Land Use Workshop – 1/15

